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PATENT ABSTRACTS OF JAPAN

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(54) WORM WHEEL

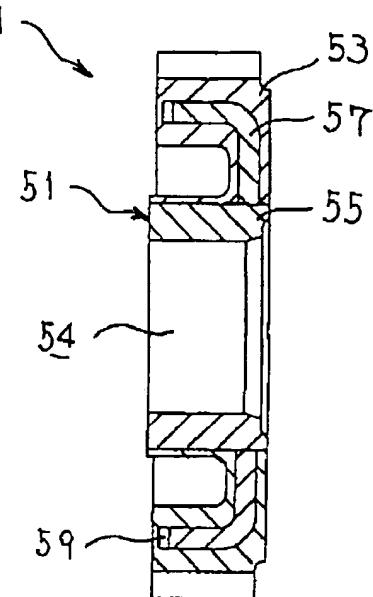
the wheel 51 is set into a metal mold.

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(57) Abstract:

PROBLEM TO BE SOLVED: To provide a worm wheel which reduces the weight, improvement of dimensional accuracy, etc.

SOLUTION: This worm wheel 41 is formed by securing a synthetic resin-made gear ring 53 to the external periphery of a metal-made wheel 51. The wheel 51 is composed of a cylindrical hub 55 having a shaft hole 54 fitted with an output shaft in the center of rotation and a plate-shaped rim 57 having an L-shaped sectional shape secured to an external periphery of the hub 55. Relating to the hub 55 which is an article made of a steel pipe serving as a material through cutting work, the rim 57 is a press molding or forging article made of a steel plate serving as a material, and both the members are firmly secured by welding, caulking, bonding, etc. Irregularities 59 are formed over the total periphery in an axial direction end face of the rim 57. While the gear ring 53, using nylon, polypropylene, etc., as a material, is formed by injection molding in a shape covering the periphery of the rim 57 after



013631315 **Image available**

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Worm wheel for motor vehicle, fixes synthetic resin made gear ring on periphery of rim which is fixed on outer circumferential surface of hub with central hole

Patent Assignee: NIPPON SEIKO KK (NSEI)

Number of Countries: 001 Number of Patents: 001

Patent Family:

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Patent Details:

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JP 2000329217 A 7 F16H-055/22

Abstract (Basic): JP 2000329217 A

NOVELTY - A metal wheel (51) has plate-shaped rim (57) with 'L' or 'T' shaped cross-section which is fixed on the outer circumferential surface of cylindrical hub with a shaft hole (54) at center. A synthetic resin-made gear ring (53) is fixed to the rim periphery.

USE - For motor vehicles.

ADVANTAGE - Since synthetic resin made gear ring is fixed to the periphery of rim, weight is reduced. Sufficient pressfitting load can be secured, by welding rib to the hub, hence dimensional accuracy is improved.

DESCRIPTION OF DRAWING(S) - The figure shows the half-cut cross-sectional chart of worm wheel.

Worm wheel (41)

Metal wheel (51)

Synthetic resin-made gear ring (53)

Shaft hole (54)

Hub (55)

Rim (57)

Roughness portion (59)

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Title Terms: WORM; WHEEL; MOTOR; VEHICLE; FIX; SYNTHETIC; RESIN; MADE; GEAR ; RING; PERIPHERAL; RIM; FIX; OUTER; CIRCUMFERENCE; SURFACE; HUB; CENTRAL ; HOLE

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